REMARKS

In accordance with the foregoing, claims 1, 7, 9, and 16 have been amended. No new matter is being presented, and approval and entry are respectfully requested.

Claim 9 stands objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitation of the base claim and any intervening claim. Because claim 9 has been amended incorporating the recitations of dependent claim 2, it is respectfully requested that amended independent claim 9 be allowed.

Claims 1-18 are pending and under consideration.

CHANGES TO THE SPECIFICATION:

The specification has been reviewed in response to this Office Action. Changes have been made to the specification only to place it in preferred and better U.S. form for issuance and to resolve the Examiner's objections raised in the Office Action. No new matter has been added as there is support for the changes in portions of the specification and drawings as originally filed.

CLAIM OBJECTIONS:

In the Office Action, at page 2, claims 7 and 16 are objected to because of informalities.

In response, the claims have been amended to improve clarity and antecedent support.

Accordingly, it is respectfully requested that objections to the claims be withdrawn.

REJECTION UNDER 35 U.S.C. § 102:

In the Office Action, at page 2, claims 1, 2, 4-8, 10-12, and 14-18 are rejected under 35 U.S.C. § 102 in view of U.S. Patent No. 6,686,912 to Kishi et al. ("Kishi"). This rejection is traversed and reconsideration is requested.

According to the Office Action, FIGS. 44 and 45 of Kishi describe the recitations of independent claims 1, 2, and 11 and related dependent claims. However, a scan driver 31'

shown in FIG. 44 of Kishi is not an impedance conversion circuit.

Specifically, in the scan driver 31' shown in FIG. 44 of Kishi, an element functioning during a reset period is not a switch element but a diode connected in parallel with each of two switch elements (FETs).

When the circuit shown in FIG. 44 is used to output a ramp waveform (a waveform increasing from GND potential to Vw' potential), which is to be applied to Y electrodes during a reset period as shown in FIG. 45 to a signal line OUTC' shown in FIG. 44, a current supplied from a power source Vw' flows to the signal line OUTC' via a constant current switch SW9', a signal line OUTB', a diode D17 and a diode on the lower side in the scan driver 31' of FIG. 44. See Col.37, lines 21-25 of Kishi.

Further, when a ramp waveform dropping from GND potential to –Vs/2 potential is outputted to the signal line OUTC', a current flows to the signal line OUTB' via the signal line OUTC', a diode on the upper side in the scan driver 31' of FIG. 44, a transistor Tr21 and a resistor R2.

Thus, the scan driver 31' merely makes up a current path and does not perform impedance conversion during a reset period. Specifically, Kishi fails to teach or suggest, "supplying a signal corresponding to the increasing voltage signal outputted by the impedance conversion circuit to the cells of the display screen during a reset period to equalize charges of the cells," as recited in independent claim 1.

In order to perform impedance conversion on a ramp waveform signal, as shown in an example of FIG. 7 according to the present invention, for example, it is necessary to input a ramp waveform signal to a control terminal of an element having an impedance conversion function (a transistor, for example), and then to supply a load with a current from a power source via the element.

Kishi fails to teach or suggest, "supplying a signal corresponding to the increasing voltage signal outputted by the impedance conversion circuit to the cells," as recited in independent claim 1. A ramp waveform signal to control terminals (gates) of a switch element in the scan driver 31' in Kishi fails to provide such recitations. Though connection to gates is not shown in Fig 44, a control signal for generating a scan pulse to be applied to a Y electrode during an address period should be supplied to these gates. In Fig. 44, it is improbable that the constant current switch SW9' is connected to gates.

Referring to independent claims 2 and 11, a switch SW5' and a transistor Tr23 shown in FIG. 44 of Kishi do not correspond to a switch circuit in each of independent claims 2 and 11. The switch SW5' is a means for generating a sustain pulse during a sustain discharge period, as shown in Figs. 21-29, 35 and 38 of Kishi. The transistor Tr23 is a means for generating a scan pulse during an address period. See column 35, line 1 - column 36, line 6 of Kishi.

The switch SW5' opens/closes a current path for returning a current from the signal line OUTC' to the signal line OUTB' via the diode on the upper side in the scan driver 31' of FIG. 44. This opening and closing is not short-circuit/cutoff between an input terminal and an output terminal of the scan driver 31'. For, the switch SW5' is not connected to the output terminal (OUTC') of the scan driver 31'. For the purpose of short-circuit between the input terminal and the output terminal of the scan driver 31', it is needed to keep the switch SW5', the transistor Tr23 and a switch (FET) on the lower side in the scan driver 31' of FIG. 44 closed.

Thus, Kishi fails to teach such a control. Kishi fails to teach or suggest, "a switch circuit connecting an input terminal of the impedance conversion circuit to an output terminal of the impedance conversion circuit when the control signal is not active," as recited in independent claim 2, and "a switch circuit disconnecting an output of the waveform generation circuit from an input of the impedance conversion circuit so as to turn off the impedance conversion circuit when the control signal is not active," as recited in independent claim 11.

In view of the foregoing, it is respectfully asserted that Kishi fails to teach or suggest all the recitations of independent claims 1, 2, and 11 and related dependent claims. It is respectfully requested that independent claims 1, 2, and 11 and related dependent claims be allowed.

REJECTION UNDER 35 U.S.C. § 103:

In the Office Action, at page 6, claims 3 and 13 are rejected under 35 U.S.C. § 103 in view of Kishi and U.S. Patent No. 3,754230 to Auger ("Auger"). The rejection is traversed and reconsideration is requested.

The arguments presented above are incorporated herein to support the patentability of claim 3/2 and claim 13/11 over Kishi.

Referring to Auger, this reference generally provides a plurality of switches for X and Y

axis of crossed grids of a capacitively coupled display of a plasma display in which the switches are used only when the displayed data is to be changed. See column 1, line 57, to column 2, line 34. The data that is not changed is displayed by the continued application of a sustaining voltage through the switches which are all open and consuming no power. However, similarly to Kishi, Auger does not teach or suggest the recitations of the switch circuit of independent claims 2 and 11. Auger does not broach the concept of providing "a switch circuit connecting an input terminal of the impedance conversion circuit to an output terminal of the impedance conversion circuit when the control signal is not active," as recited in independent claim 2, and "a switch circuit disconnecting an output of the waveform generation circuit from an input of the impedance conversion circuit so as to turn off the impedance conversion circuit when the control signal is not active," as recited in independent claim 11.

Thus, assuming *arguendo*, that Kishi and Auger were combined, a combination thereof would not provide all the recitations of independent claims 2 and 11.

In view of the foregoing, it is respectfully asserted that Kishi and Auger fail to teach or suggest all the recitations of independent claims 2 and 11 and related dependent claims. It is respectfully requested that independent claims 2 and 11 and related dependent claims be allowed.

CONCLUSION:

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot, and further, that all pending claims patentably distinguish over the prior art. There being no further outstanding objections or rejections, the application is submitted as being in condition for allowance, which action is earnestly solicited.

If the Examiner has any remaining issues to be addressed, it is believed that prosecution can be expedited by the Examiner's contacting the undersigned attorney for a telephone interview to discuss resolution of such issues.

If there are any underpayments or overpayments of fees associated with the filing of this Amendment, please charge and/or credit the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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Date: ___August 12, 2004_____ By: _____

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